

111 Herrick Street, Merrimack, NH 03054 TEL: (603) 424-2022 · FAX: (603) 429-8496

November 10, 2000

Tim Dame GEI Consultants, Inc. 1021 Main Street

Winchester, MA 01890

TEL: (781) 721-4000 FAX (781) 721-4073

RE: 00291 Canton

Order No.: 0010268

Dear Tim Dame:

presented in the following report AMRO Environmental Laboratories Corp. received 10 samples on 10/26/00 for the analyses

associated with this project. Receipt Checklist details the condition of your sample(s) upon receipt. Please see the enclosed AMRO operates a Quality Assurance Program which meets or exceeds EPA and state requirements. A copy of the appropriate State Certificate is attached. The enclosed Sample Case Narrative for quality control deviations that were encountered during the analyses

period of thirty (30) days from this report date. Please be advised that any unused sample volume and sample extracts will be stored for a period, please contact us immediately the remaining sample(s). If you require further analysis, or need the samples held for a longer After this time, AMRO will properly dispose of

project in the future, please refer to the Order Number above This letter is an integral part of your data report. If you have any questions regarding this

Sincerely,

Nancy Stewart

Vice President / Lab Director

WORK ORDER SAMPLE SUMMARY

Date: 06-Nov-00

CLIENT: GEI Consultants, Inc. 00291 Canton

Project:

Lab Order: 0010268

Date Received: 10/26/00

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Collection Date
0010268-01A	00291-SS1	10/25/00
0010268-02A	00291-SS2	10/25/00
0010268-03A	00291-SS3	10/25/00
0010268-04A	00291-SS4	10/25/00
0010268-05A	00291-SS5	10/25/00
0010268-06A	00291-SS6	10/25/00
0010268-07A	00291-SS8	10/25/00
0010268-08A	00291-SS10	10/25/00
0010268-09A	00291-SS7	10/25/00
0010268-10A	00291-SS9	10/25/00

Lab Order:

0010268

Client:

GEI Consultants, Inc.

Project:

00291 Canton

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
0010268-01A	00291-SS1	10/25/00	Soil	PCBS IN SOIL/SOLIDS		10/30/00	10/31/00
				Percent Moisture			10/26/00
0010268-02A	00291-SS2			PCBS IN SOIL/SOLIDS		10/30/00	10/31/00
				Percent Moisture			10/26/00
0010268-03A	00291-SS3			PCBS IN SOIL/SOLIDS		10/30/00	10/31/00
				PCBS IN SOIL/SOLIDS		10/30/00	11/1/00
				Percent Moisture			10/26/00
0010268-04A	00291-SS4			PCBS IN SOIL/SOLIDS		10/30/00	10/31/00
				PCBS IN SOIL/SOLIDS		10/30/00	11/1/00
				Percent Moisture			10/26/00
0010268-05A	00291-SS5			PCBS IN SOIL/SOLIDS		10/30/00	11/1/00
				PCBS IN SOIL/SOLIDS		10/30/00	10/31/00
				Percent Moisture			10/26/00
0010268-06A	00291-SS6			PCBS IN SOIL/SOLIDS		10/30/00	11/1/00
				Percent Moisture			10/26/00
0010268-07A	00291-SS8			PCBS IN SOIL/SOLIDS		10/30/00	11/1/00
				Percent Moisture			10/26/00
0010268-08A	00291-SS10			PCBS IN SOIL/SOLIDS		10/30/00	11/1/00
				Percent Moisture			10/26/00
0010268-09A	00291-SS7			EPH, Soil, Full List		10/27/00	10/31/00
				PCBS IN SOIL/SOLIDS		10/30/00	11/1/00
				PCBS IN SOIL/SOLIDS		10/30/00	11/1/00
				Percent Moisture			10/26/00
0010268-10A	00291-SS9			EPH, Soil, Full List		10/27/00	11/1/00
				PCBS IN SOIL/SOLIDS		10/30/00	11/1/00
				Percent Moisture			10/26/00

CHAIN-OF-CUSTODY

▼ GEI Consultants, Inc. DOCUMENT NUMBER AMRO Winchester, Massachusetts Chain-of-Custody Record lofl Project Name and Number: Preservative 18600 Canton * Special Rates) Samplers: A. Stone Analysis WDC C. Hayward 1 PCB1 Station No. Date Time Matrix Sample Number No. of (houts) Remarks Containers 55-1 10/25/00 Soil 1410 00291-551 55-2 1415 00291-552 55-3 1450 00291-553 55-4 1440 00291-554 55-5 00271-555 1505 55-6 1515 00291-556 <u>55-7</u> <u>55-8</u> 1530 00291-557 1540 00291-558 55-9 00291-559 1550 55-10 V). 1605 00291-5510 TAT: 24 hr _____ 48 lir 72 hr Normal Relinquished by: Date/Time: Received by: 125/00/ 1720 Relinquished by: WSJANS Date/Time: 0735 Sample Fridge Received by: Sanderide Molac 10/24/d Relinquished by: Received by: Date/Time: 0545 Relinguished by Date/Time: avun Received for Laboratory by:

Remarks:

Method of Shipment:

From: Tim Dame	Fax No.: 1-603-429-8496	To: Mirta - AMRO	10/26/00 00291 date GEI project or proposal #	1021 Main Street Winchester, MA 01890
O-Same	496	ő	roposal # task code (if required)	
		,	number of pages including this page	Tel. 781-721-4000 Fax 781-721-4073

Message

Here are some corrections/additional analyses/info per our phone discussion:

- 1) Please log in the samples SS-7 and SS-9 for the MDC Canton project for EPH also. Amended COC is attached.
- The North Jetty sample SS303 Stan faxed me about earlier should be analyzed for EPH per the COC. Clear glass jars are OK.
- ω Due to holding time issue, please extract Conley samples: Pit A, fingerprint. Do not analyze extracts until requested. 'n O Qο D for TPH
- $f_{g}^{mo/le}$ 4) For Conley samples SP6, SP7, and SP9 RCRA 8 metals were requested, so separate request for total lead. Amended COC is attached.

GE) use, check one
File
Discard
Return to

Project Name or	d Number:					lofi				Chain of-Custody Reco
600		Canton	a					Preservali	V8	
Samplers:	Stone Hayun							Analysis	,	* "Special Rates"
Station No.	Date	Tinsa (hours)	Matrix	Sample Number	No. of Containers	QCB.	EPH	10/26	16	Remerks
55-1	10/25/0	1410	Soil	00291-551	- i	1		-		
55-2		1415		06291-552						
55-3		1450		00291-553						
55-4		1440		00291-554						,
55- <i>5</i>		1505		00271-555						
55-6		1515	_	00291-556						
55-7		1530		00291-557			X			
SS-8 SS-9		1740		00291-538						
55-10	-	1550		00291-559			X			
TAT:		1605	24 Ju	00291-5510	V	V				
etinguished by:			 -	40 hr		72 lir			Normal	
AStone		Date/Time:	26		Hellingulshed by		A 1		0735	Racelvad bo:
elinquished by:		Date/Time:		D	Relinquished by			Date/Time:		Received for Laboratory by:
ethod of Shipment	;	-		Nemarks: added E	alu Å			1		

SAMPLE RECEIPT CHECKLIST

1000 (c) 20/26/01	Date: d	STS M 61	ate: $(0/26/00)$ Logged in By:
			Filtration Log?
		,	Client Log?
		,	Dry Weight Log?
		, ,	
			21 Information entered into:
			Analysis:
			Date:
			Where sent:
			What samples sent:
	\		20. Subcontracted Samples:
	. U	te VOA lab ASAP	Was dry weight aliquot provided?
		ned from client	Were vials provided by AMRO? If NO then weights MUST be obtained from client
			If NO then client must be faxed.
			Does preservation level come close to the fill line on the vial?
			Does preservative cover the soil?
			If Mor SB:
	0 = 80 ix	. ==EnCore,	Sampling Method VOA (circle one): M=Methanol, SB=Sodium Bisulfate
		container)	Sampling Method VPH (circle one):
	7		- 11
		7	17. Were the sample volumes summer to requeste and samples received?
		\$	-
	2	1	15. Were all samples received intact? (none proken or leaking)
		1	Were
		1	13. Were all samples properly preserved?
			12. Were all samples properly labeled?
		1	11. Were samples rec. within holding time?
		1	10. Does the info on the COC match the samples?
		\	
			from the client for the ar
		\	Is client temperature 4°C ± 2°C?
			d the same o
			Samples rec. with iceice packs neither
			7 Laboratory receipt temperature / TEMP = 0
		\	Is COC included with samples?
		7	
	1		
	\		Army Samples
Comments	NA A	es No	Items to be Checked Upon Receipt
			Hand Del. Other Courier. Other:
11-6-00			sircle one) Fed Es
10-26-00		Date Rec.:	Name: CANTON
707-424 (COO) 895	10	AMRO ID:	Client:
Merrimack, NH 0305			
	_	CHECKLIN	AMRO Environmental SAMPI T RECEIPT O

qc/qcmemos/forms/samplerec Rev.18 06/00

STATE CERTIFICATE





Department of Environmental Protection Division of Environmental Analysis Senator William X. Wall Experiment Station

certifies

M-NH012

AMRO ENVIRONMENTAL LAB 111 HERRICK ST MERRIMACK, NH 03054-0000

Laboratory Director: Nancy Stewart

for the analysis of NON POTABLE WATER (CHEMISTRY)
POTABLE WATER (CHEMISTRY)

pursuant to 310 CMR 42.00

Massachusetts regulations at 310 CMR 42.00. The laboratory is regulated by and shall be responsible for being in compliance with This certificate supersedes all previous Massachusetts certificates issued to this laboratory.

as issued by the Massachusetts D.E.P. verify the current certification status of the laboratory. This certificate is valid only when accompanied by the latest dated Certified Parameter List Contact the Division of Environmental Analysis to

unannounced laboratory inspections. Certification is no guarantee of the validity of the data. This certification is subject to

car Q. Parcale

Issued: 01 JUL 2000 Expires: 30 JUN 2001

Director, Division of Environmental Analysis

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CASE NARRATIVE

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CASE NARRATIVE 0010268

GENERAL

1. No QC deviations were observed.

MADEP-EPH

SOIL

- within the laboratory control limits (40-140%) with the following exception: The batch Matrix Spike (MS) was performed on sample 0010266-02B. All %R's were
- respectively due possibly to non-homogeneity of the sample. Pyrene and Chrysene recovered above the control limits at 214% and 147%
- 2. possibly due to non-homogeneity between the sample and sample duplicate. with in the laboratory control limit (50%) with the exception of Phenanthrene at 55.6% The batch Duplicate (DUP) was performed on sample 0010266-03B. All %RPD's were
- 3. No other QC deviations were observed.

GC/ECD-PCB

SOIL

- Samples 00291-SS1 (00010268-01A), 00291-SS5 (00010268-05A), 00291-SS8 (00010268-07A), 00291-SS7 (00010268-09A), and 00291-SS9 (00010268-10A) had estimated concentrations due to the presence of overlapping Aroclors.
- 2 xylene at 34.9% outside the laboratory control limits (43-117%). Sample 00291-SS3 (0010268-03A) had a recovery for the surrogate Tetrachloro-m-
- ယ Sample 00291-SS6 (0010268-06A) had recoveries for the surrogates Tetrachloro-mat 316% outside the laboratory control limits (36-130%). xylene at 38.6% outside the laboratory control limits (43-117%) and Decachlorobiphenyl



- 4. The batch Matrix Spike (MS) and Matrix Spike Duplicate (MSD) were performed on sample 00291-SS5 (0010268-05A). All %R's and %RPD's were within laboratory control limits with the following exception:
- and MSD at 33.3% and 12.9% respectively possibly due to high concentration of Aroclor 1260 in the sample relative to spike concentration. The Aroclor 1260 recovered below the control limits (39-120%) in the MS
- 5. No other QC deviations were observed.



Massachusetts Department of Environmental Protection (MADEP) Volatile Petroleum Hydrocarbons (VPH) Method 1.0 - January 1998 **AMRO Modifications**

quantified using predominant mass fragmentation ions which are characteristic for the spectrometer (GCMS) system to analyze samples for VPH. The hydrocarbon ranges are analytes while providing accurate hydrocarbon range data. range being measured. This approach eliminates potential false positives for the target This modification is based on the use of a purge and trap gas chromatography mass

validated by GCMS analysis of a gasoline standard to correctly identify the marker compounds and elution order of specific gasoline components. Batch quality control includes, at a minimum, method blank, laboratory control sample, and duplicate analysis. A matrix spike and/or matrix spike duplicate is analyzed if sufficient sample is submitted to The chromatographic column is an HP-624 capillary column which has been

and 2.0-5.0 μg/L for water samples. of this method for the target analytes ranges from approximately 0.05-0.13 mg/kg in soil aromatic ranges is approximately 0.6-2.8 mg/kg in soil and 25-110 μ g/L in water. The Reporting Limit (RL) of this method for each of the collective aliphatic and

Massachusetts Department of Environmental Protection (MADEP) Extractable Petroleum Hydrocarbons (EPH) Method 1.0 - January 1998 AMRO Modifications

measured. This approach eliminates the silica gel solid-phase fractionation step. positives for targeted PAH analytes are eliminated by using GCMS as the primary predominant mass fragmentation ions which are characteristic for the range being spectrometer (GCMS) analysis. The hydrocarbon ranges are quantified using analysis technique. This modification is based on a solvent extraction and gas chromatography mass

ng/µL in the sample extract. These two surrogates monitor the effects of the sample Internal standard calibration is performed using 5α -Androstane at a concentration of 40 matrix and extraction efficiency. Two additional sugrogates, 2-Fluorobiphenyl and 2blank, laboratory control sample and duplicate sample analysis. A matrix spike is Bromonaphthalene, are added to the finished extract prior to analysis to monitor analyzed if sufficient sample is submitted to the laboratory. instrument performance. The chromatographic column is a J&W Scientific DB-5ms capillary column o-Terphenyl and 1-Chlorooctadecane are added as surrogate compounds at 20 Batch quality control includes, at a minimum, a procedure

when operating the GCMS in SIM mode. For sites requiring the lowest levels cited in the Massachusetts Contingency Plan for water, GCMS in the Selected Ion Monitoring (SIM) The Reporting Limit (RL) of this method for each of the collective aliphatic and aromatic ranges is approximately 2-15 mg/kg in soil and 10-50 μ g/L in water. The RL of this method for the Target PAH analytes ranges from approximately 0.25 to 0.5 mg/kg in mode is used. $1.0~\mu g/L$ for water when operating the GCMS in full scan mode, and 0.1 to $1.0~\mu g/L$

EXTRACTABLE PETROLEUM HYDROCARBONS (EPH)
SOIL

SAMPLE RESULT

Date: 06-Nov-00

Lab Order: CLIENT: Analyses Lab ID: Project: 00291 Canton 0010268-10A 0010268 GEI Consultants, Inc Result RL Qual Units Client Sample ID: Collection Date: Tag Number: Matrix: SOIL 00291-SS9 10/25/00 DH Date Analyzed

Analyst: SL 10/26/00	-	wt%	D2216 0	63.0	PERCENT MOISTURE Percent Moisture
11/1/00 4:54:00 PM	_	%REC	40-140	61.1	Surr: o-Terphenyl
11/1/00 4:54:00 PM	_	%REC	40-140	103	Surr: 2-Fluorobiphenyl
11/1/00 4:54:00 PM	_	%REC	40-140	104	Surr: 2-Bromonaphthalene
11/1/00 4:54:00 PM	_	%REC	40-140	61.3	Surr: 1-Chlorooctadecane
11/1/00 4:54:00 PM	_	mg/Kg-dry	0.66	N	Benzo(g,h,i)perylene
11/1/00 4:54:00 PM	_	mg/Kg-dry	0.66	ND	Indeno(1,2,3-cd)pyrene
11/1/00 4:54:00 PM	_	mg/Kg-dry	0.66	ND	Dibenz(a,h)anthracene
11/1/00 4:54:00 PM	_	mg/Kg-dry	0.66	N	Benzo(a)pyrene
11/1/00 4:54:00 PM	_	mg/Kg-dry	0.66	N	Benzo(k)fluoranthene
11/1/00 4:54:00 PM	_	mg/Kg-dry	0.66	ND	Benzo(b)fluoranthene
11/1/00 4:54:00 PM	_	mg/Kg-dry	0.66	N	Chrysene
11/1/00 4:54:00 PM	_	mg/Kg-dry	0.66	N	Benz(a)anthracene
11/1/00 4:54:00 PM		mg/Kg-dry	0.66	N	Pyrene
11/1/00 4:54:00 PM	_	mg/Kg-dry	0.66	ND	Fluoranthene
11/1/00 4:54:00 PM	_	mg/Kg-dry	0.66	ND	Anthracene
11/1/00 4:54:00 PM	_	mg/Kg-dry	0.66	ND	Phenanthrene
11/1/00 4:54:00 PM	_	mg/Kg-dry	0.66	ND	Fluorene
11/1/00 4:54:00 PM	_	mg/Kg-dry	0.66	ND	Acenaphthene
11/1/00 4:54:00 PM	_	mg/Kg-dry	0.66	ND	Acenaphthylene
11/1/00 4:54:00 PM	_	mg/Kg-dry	0.66	ND	2-Methylnaphthalene
11/1/00 4:54:00 PM	<u></u>	mg/Kg-dry	0.66	N	Naphthalene
11/1/00 4:54:00 PM	_	mg/Kg-dry	130	N	C11-C22 Aromatic Hydrocarbons
11/1/00 4:54:00 PM	_	mg/Kg-dry	130	N	C19-C36 Aliphatic Hydrocarbons
11/1/00 4:54:00 PM	_	mg/Kg-dry	130	ND	C9-C18 Aliphatic Hydrocarbons
Analyst: GG			MAEPH	BONS	EXTRACTABLE PETROLEUM HYDROCARBONS

Hydrocarbon range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range. EPH: C11-C22 Aromatic Hydrocarbons exclude the concentration of target PAH analytes. VPH: C5-C8 Aliphatic Hydrocarbons exclude the concentration of target analytes eluting in this range. C9-C12 Aliphatic Hydrocarbons exclude the concentration of target analytes eluting in this range and concentration of C9-C10 Aromatic Hydrocarbons.

CERTIFICATION

Were all QA/QC procedures required by the VPH or EPH method followed:

Yes

No - If No, See Case Narrative

Were all performance/acceptance standards for required QA/QC procedures achieved:

Were any significant modifications made to the method as specified in section 11.3: _ Yes . 8

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the Yes - Details enclosed

information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

PRINTED NAME: Nancy Stewart

SIGNATURE:

DATE:

POSITION: Laboratory Director (or designee)

11-7-00

RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

E - Value above quantitation range

J - Analyte detected below quantitation limits B - Analyte detected in the associated Method Blank R - RPD outside accepted recovery limits

- See Case Narrative

Date: 06-Nov-00

Project: CLIENT: Analyses Lab ID: Lab Order: 00291 Canton 0010268 GEI Consultants, Inc. 0010268-09A Client Sample ID: Collection Date: Tag Number: Matrix: SOIL 00291-SS7 10/25/00

Result

2

Qual Units

DF

Date Analyzed

10/26/00	_	wt%	0	64.9	Percent Moisture
Analyst: SL			D2216		PERCENT MOISTURE
10/31/00 9:27:00 AM	_	%REC	40-140	50.3	Surr: o-Terphenyl
10/31/00 9:27:00 AM	_	%REC	40-140	104	Surr: 2-Fluorobiphenyl
10/31/00 9:27:00 AM	_	%REC	40-140	111	Surr: 2-Bromonaphthalene
10/31/00 9:27:00 AM	_	%REC	40-140	67.5	Surr: 1-Chlorooctadecane
10/31/00 9:27:00 AM	-	mg/Kg-dry	0.71	ND	Benzo(g,h,i)perylene
10/31/00 9:27:00 AM		mg/Kg-dry	0.71	ND	Indeno(1,2,3-cd)pyrene
10/31/00 9:27:00 AM		mg/Kg-dry	0.71	ND	Dibenz(a,h)anthracene
10/31/00 9:27:00 AM	_	mg/Kg-dry	0.71	ND	Benzo(a)pyrene
10/31/00 9:27:00 AM	_	mg/Kg-dry	0.71	ND	Benzo(k)fluoranthene
10/31/00 9:27:00 AM	_	mg/Kg-dry	0.71	ND	Benzo(b)fluoranthene
10/31/00 9:27:00 AM	_	mg/Kg-dry	0.71	ND	Chrysene
10/31/00 9:27:00 AM	_	mg/Kg-dry	0.71	ND	Benz(a)anthracene
10/31/00 9:27:00 AM	_	mg/Kg-dry	0.71	ND	Pyrene
10/31/00 9:27:00 AM	_	mg/Kg-dry	0.71	ND	Fluoranthene
10/31/00 9:27:00 AM	_	mg/Kg-dry	0.71	ND	Anthracene
10/31/00 9:27:00 AM	_	mg/Kg-dry	0.71	ND	Phenanthrene
10/31/00 9:27:00 AM	_	mg/Kg-dry	0.71	ND	Fluorene
10/31/00 9:27:00 AM	_	mg/Kg-dry	0.71	ND	Acenaphthene
10/31/00 9:27:00 AM	->	mg/Kg-dry	0.71	ND	Acenaphthylene
10/31/00 9:27:00 AM	_	mg/Kg-dry	0.71	ND	2-Methylnaphthalene
10/31/00 9:27:00 AM	>	mg/Kg-dry	0.71	ND	Naphthalene
10/31/00 9:27:00 AM		mg/Kg-dry	140	ns ND	C11-C22 Aromatic Hydrocarbons
10/31/00 9:27:00 AM	_	mg/Kg-dry	140	1S ND	C19-C36 Aliphatic Hydrocarbons
10/31/00 9:27:00 AM		mg/Kg-dry	140	ND	C9-C18 Aliphatic Hydrocarbons
Analyst: GG			MAEPH	M HYDROCARBONS	EXTRACTABLE PETROLEUM HYDROCARBONS

Hydrocarbon range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range. EPH: C11-C22 Aromatic Hydrocarbons exclude the concentration of target PAH analytes. VPH: C5-C8 Aliphatic Hydrocarbons exclude the concentration of target analytes eluting in this range. C9-C12 Aliphatic Hydrocarbons exclude the concentration of target analytes eluting in this range and concentration of C9-C10 Aromatic Hydrocarbons.

CERTIFICATION

Were all QA/QC procedures required by the VPH or EPH method followed:

Yes

Yes

No - If No, See Case Narrative No - If No, See Case Narrative

Were all performance/acceptance standards for required QA/QC procedures achieved:

Were any significant modifications made to the method as specified in section 11.3:

information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete. I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the ۱ N Yes - Details enclosed

SIGNATURE: DATE: 1-460

RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.

ND - Not Detected at the Reporting Limit

PRINTED NAME: Nancy Stewart

S - Spike Recovery outside accepted recovery limits

E - Value above quantitation range

POSITION: Laboratory Director (or designee)

J - Analyte detected below quantitation limits B - Analyte detected in the associated Method Blank R - RPD outside accepted recovery limits

- See Case Narrative

METHOD BLANK

CLIENT:

GEI Consultants, Inc.

Work Order:

0010268

Project: 00291 Canton

Date: 08-Nov-00

QC SUMMARY REPORT

Method Blank

Sample ID MB-3024	Batch ID: 3024	Test Cod	e: MAEPH	Units:	ng/Kg		Analysis I	Date 10/30/0	00 10:17:00 PM	Prep Date	e 10/27/00	
Client ID:		Run ID:	SV-2_00	1030A			SeqNo:	85100	•			
	QC Sample			QC Spike Or	ginal Sample)			Original Sample			
Analyte	Result	RL	Units	Amount	Result	%REC	LowLimit	HighLimit	or MS Result	%RPD	RPDLimit	Qua
C9-C18 Aliphatic Hydrocarbons	ND	50	mg/Kg									
C19-C36 Aliphatic Hydrocarbons	ND	50	mg/Kg									
C11-C22 Aromatic Hydrocarbons	ND	50	mg/Kg									
Naphthalene	ND	0.25	mg/Kg									
2-Methylnaphthalene	ND	0.25	mg/Kg									
Acenaphthylene	ND	0.25	mg/Kg									
Acenaphthene	ND	0.25	mg/Kg									
Fluorene	ND	0.25	mg/Kg									
Phenanthrene	ND	0.25	mg/Kg									
Anthracene	ND	0.25	mg/Kg									
Fluoranthene	ND	0.25	mg/Kg									
Pyrene	ND	0.25	mg/Kg									
Benz(a)anthracene	ND	0.25	mg/Kg									
Chrysene	ND	0.25	mg/Kg									
Benzo(b)fluoranthene	ND	0.25	mg/Kg									
Benzo(k)fluoranthene	ND	0.25	mg/Kg									
Benzo(a)pyrene	ND	0.25	mg/Kg									
Dibenz(a,h)anthracene	ND	0.25	mg/Kg									
ndeno(1,2,3-cd)pyrene	ND	0.25	mg/Kg									
Benzo(g,h,i)perylene	ND	0.25	mg/Kg									
Surr: 1-Chlorooctadecane	1.131	0.25	mg/Kg	1	0	113	40	140	0			
Surr: 2-Bromonaphthalene	5.52	0.25	mg/Kg	5	0	110	40	140	0			
Surr: 2-Fluorobiphenyl	5.361	0.25	mg/Kg	5	0	107	40	140	0			
Surr: o-Terphenyl	0.9738	0.25	mg/Kg	1	0	97.4	40	140	0			

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.

MATRIX SPIKE

CLIENT:

GEI Consultants, Inc.

Work Order:

0010268

Project:

00291 Canton

QC SUMMARY REPORT

Date: 08-Nov-00

Sample Matrix Spike

Sample ID 0010266-02BMS	Batch ID: 3024	Test	Code: MAEPH	Units: 1	mg/Kg-dry		Analysis I	Date 10/31/0	0 6:30:00 AM	Prep Date	e 10/27/00	
Client ID:		Run	ID: SV-2_00	1030A			SeqNo:	85142				
	QC Sample			QC Spike Ori	ginal Sample	•		(Original Sample			
Analyte	Result	RL	Units	Amount	Result	%REC	LowLimit	HighLimit	or MS Result	%RPD	RPDLimit	Qua
n-Eicosane	1.714	0.29	mg/Kg-dry	1.463	0	117	40	140	0			
n-Nonadecane	1.6	0.29	mg/Kg-dry	1.463	0	109	40	140	0			
n-Nonane	1.328	0.29	mg/Kg-dry	1.463	0	90.8	40	140	0			
n-Octacosane	1.571	0.29	mg/Kg-dry	1.463	0	107	40	140	0			
n-Tetradecane	1.919	0.29	mg/Kg-dry	1.463	0	131	40	140	0			
Naphthalene	2.608	0.29	mg/Kg-dry	1.463	0.7856	125	40	140	0			
Acenaphthene	1.729	0.29	mg/Kg-dry	1.463	0	118	40	140	0			
Anthracene	2.308	0.29	mg/Kg-dry	1.463	0.4214	129	40	140	0			
Pyrene	5.472	0.29	mg/Kg-dry	1.463	2.341	214	40	140	0			S
Chrysene	3.401	0.29	mg/Kg-dry	1.463	1.257	147	40	140	0			s
Surr: 1-Chlorooctadecane	1.368	0.29	mg/Kg-dry	1.17	0	117	40	140	0			
Surr: 2-Bromonaphthalene	6.954	0.29	mg/Kg-dry	5.851	0	119	40	140	0			
Surr: 2-Fluorobiphenyl	6.648	0.29	mg/Kg-dry	5.851	0	114	40	140	0			
Surr: o-Terphenyl	1.028	0.29	mg/Kg-dry	1.17	0	87.9	40	140	0			

Qualifiers: ND - No

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.

SAMPLE AND SAMPLE DUPLICATE

CLIENT:

GEI Consultants, Inc.

Work Order:

0010268

Project:

00291 Canton

Date: 08-Nov-00

QC SUMMARY REPORT

Sample Duplicate

Sample ID 0010266-03BDUP I	Batch ID: 3024	Test	Code: MAEPH	Units: n	ng/Kg-dry		Analysis I	Date 10/31/0	0 7:41:00 AM	Prep Date	e 10/27/00	
Client ID:		Run	ID: SV-2_0 0	1030A			SeqNo:	85144				
	QC Sample			QC Spike Orig	ginal Sample	!		(Original Sample			
Analyte	Result	RL	Units	Amount	Result	%REC	LowLimit	HighLimit	or MS Result	%RPD	RPDLimit	Qua
C9-C18 Aliphatic Hydrocarbons	ND	55	mg/Kg-dry	0	0	0	0	0	0	0	50	
C19-C36 Aliphatic Hydrocarbons	66.09	55	mg/Kg-dry	. 0	0	0	. 0	0	72.84	9.71	50	
C11-C22 Aromatic Hydrocarbons	ND	55	mg/Kg-dry	0	0	0	0	0	0	0	50	
Naphthalene	ND	0.27	mg/Kg-dry	0	0	0	0	0	0	. 0	50	
2-Methylnaphthalene	ND	0.27	mg/Kg-dry	0	0	0	0	0	0	0	50	
Acenaphthylene	ND	0.27	mg/Kg-dry	0	0	0	0	0	0	0	50	
Acenaphthene	ND	0.27	mg/Kg-dry	0	0	0	0	0	0	0	50	
Fluorene	ND	0.27	mg/Kg-dry	0	0	0	0	0	0	0	50	
Phenanthrene	1.026	0.27	mg/Kg-dry	0	0	0	0	0	1.815	55.6	50	R
Anthracene	ND	0.27	mg/Kg-dry	0	0	0	0	0	0.4092	0	50	
Fluoranthene	1.773	0.27	mg/Kg-dry	0	0	0	0	0	2.765	43.7	50	
Pyrene	1.635	0.27	mg/Kg-dry	0	0	0	0	0	2.43	39.1	50	
Benz(a)anthracene	0.864	0.27	mg/Kg-dry	0	0	0	0	0	1.236	35.4	50	
Chrysene	0.9299	0.27	mg/Kg-dry	0	0	0	0	0	1.366	38	50	
Benzo(b)fluoranthene	1.23	0.27	mg/Kg-dry	0	0	0	0	0	1.619	27.3	50	
Benzo(k)fluoranthene	0.4306	0.27	mg/Kg-dry	0	0	0	0	0	0.64	39.1	50	
Benzo(a)pyrene	0.9175	0.27	mg/Kg-dry	0	0	0	0	0	1.268	32	50	
Dibenz(a,h)anthracene	ND	0.27	mg/Kg-dry	0	0	0	0	0	0	0	50	
Indeno(1,2,3-cd)pyrene	0.4649	0.27	mg/Kg-dry	0	0	0	0	0	0.6013	25.6	50	
Benzo(g,h,i)perylene	0.3826	0.27	mg/Kg-dry	0	0	0	0	0	0.4575	17.8	50	
Surr: 1-Chlorooctadecane	1.199	0.27	mg/Kg-dry	1.097	0	109	40	140	0	0	0	
Surr: 2-Bromonaphthalene	5.908	0.27	mg/Kg-dry	5.486	0	108	40	140	0	0	0	
Surr: 2-Fluorobiphenyl	5.65	0.27	mg/Kg-dry	5.486	0	103	40	140	0	0	0	
Surr: o-Terphenyl	0.8599	0.27	mg/Kg-dry	1.097	0	78.4	40	140	0	0	0	

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.

LABORATORY CONTROL SAMPLE

CLIENT:

GEI Consultants, Inc.

Work Order:

0010268

Project:

00291 Canton

Date: 08-Nov-00

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID LCS-3024	Batch ID: 3024	Test Cod	le: MAEPH	Units: I	ng/Kg		Analysis I	Date 10/30/0	0 10:52:00 PM	Prep Date	10/27/00	
Client ID:		Run ID:	SV-2_00	1030A			SeqNo:	85101				
	QC Sample			QC Spike Ori	ginal Sample	:		(Original Sample			
Analyte	Result	RL	Units	Amount	Result	%REC	LowLimit	HighLimit	or MS Result	%RPD	RPDLimit	Qua
n-Eicosane	1.42	0.25	mg/Kg	1.25	0	114	40	140	0			
n-Nonadecane	1.359	0.25	mg/Kg	1.25	0	109	40	140	0			
n-Nonane	1.132	0.25	mg/Kg	1.25	0	90.6	40	140	0			
n-Octacosane	1.371	0.25	mg/Kg	1.25	0	110	40	140	0			
n-Tetradecane	1.479	0.25	mg/Kg	1.25	0	118	40	140	0			
Naphthalene	1.246	0.25	mg/Kg	1.25	0	99.7	40	140	0			
Acenaphthene	1.148	0.25	mg/Kg	1.25	0	91.8	40	140	0			
Anthracene	1.146	0.25	mg/Kg	1.25	0	91.7	40	140	0			
Pyrene	1.096	0.25	mg/Kg	1.25	0	87.7	40	140	0			
Chrysene	1.052	0.25	mg/Kg	1.25	0	84.2	40	140	0			
Surr: 1-Chlorooctadecane	1.186	0.25	mg/Kg	1	0	119	40	140	0			
Surr: 2-Bromonaphthalene	5.504	0.25	mg/Kg	5	0	110	40	140	0			
Surr: 2-Fluorobiphenyl	5.245	0.25	mg/Kg	5	0	105	40	140	0			
Surr: o-Terphenyl	0.8988	0.25	mg/Kg	1	0	89.9	40	140	0			

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.

PCB-SOIL

SW-846 METHOD 8082

SAMPLE RESULT

Date: 06-Nov-00

Project: Lab ID: Lab Order: CLIENT: 0010268-01A 00291 Canton 0010268 GEI Consultants, Inc. Client Sample ID: 00291-SS1 Collection Date: 10/25/00 Matrix: SOIL

Analyses	Result	RL Qu	RL Qual Units	DF	Date Analyzed
PCBS BY EPA8082	S	SW8082			Analyst: RAP
Aroclor 1016	ND	27	µg/Kg-dry	_	10/31/00 9:22:00 PM
Aroclor 1221	ND	27	µg/Kg-dry	_	10/31/00 9:22:00 PM
Aroclor 1232	ND	27	µg/Kg-dry	_	10/31/00 9:22:00 PM
Aroclor 1242	N	27	µg/Kg-dry	_	10/31/00 9:22:00 PM
Aroclor 1248	N D	27	μg/Kg-dry		10/31/00 9:22:00 PM
Aroclor 1254	340	27 #	μg/Kg-dry	_	10/31/00 9:22:00 PM
Aroclor 1260	280	27 #	µg/Kg-dry	_	10/31/00 9:22:00 PM
Surr: Tetrachloro-m-xylene	81.4	43-117	%REC	>	10/31/00 9:22:00 PM
Surr: Decachlorobiphenyl	74.3	36-130	%REC		10/31/00 9:22:00 PM
Aroclor 1254 Aroclor 1260 Surr: Tetrachloro-m-xylene Surr: Decachlorobiphenyl	340 280 81.4 74.3	27 # 27 # 43-117 36-130	μg/Kg-dry μg/Kg-dry %REC %REC		10/31/00 9:22:00 PM 10/31/00 9:22:00 PM 10/31/00 9:22:00 PM 10/31/00 9:22:00 PM

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ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

- See Case Narrative

Date: 06-Nov-00

Project: CLIENT: Lab ID: Lab Order: 00291 Canton 0010268 0010268-02A GEI Consultants, Inc. Client Sample ID: 00291-SS2 Collection Date: 10/25/00 Matrix: SOIL

Analyses	Result	RL Q	RL Qual Units	DF	Date Analyzed
PCBS BY EPA8082		SW8082			Analyst: RAP
Aroclor 1016	ND	27	μg/Kg-dry	_	10/31/00 9:49:00 PM
Aroclor 1221	ND	27	µg/Kg-dry		10/31/00 9:49:00 PM
Aroclor 1232	ND	27	µg/Kg-dry		10/31/00 9:49:00 PM
Aroclor 1242	ND	27	μg/Kg-dry		10/31/00 9:49:00 PM
Aroclor 1248	ND	27	µg/Kg-dry	_	10/31/00 9:49:00 PM
Aroclor 1254	ND	27	µg/Kg-dry	-	10/31/00 9:49:00 PM
Aroclor 1260	810	27	µg/Kg-dry	_	10/31/00 9:49:00 PM
Surr: Tetrachloro-m-xylene	50.5	43-117	%REC	_	10/31/00 9:49:00 PM
Surr: Decachlorobiphenyl	56.1	36-130	%REC	<u> </u>	10/31/00 9:49:00 PM

Qualifiers:
ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

- See Case Narrative

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

^{* -} Value exceeds Maximum Contaminant Level

RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.

Date: 06-Nον-00

CLIENT: Lab Order: 0010268 GEI Consultants, Inc. Client Sample ID: 00291-SS3

Project: Lab ID: 0010268-03A 00291 Canton Collection Date: 10/25/00 Matrix: SOIL

Analyses	Result	RL (Qual	RL Qual Units	DF	Date Analyzed
PCBS BY EPA8082	S	SW8082				Analyst: RAP
Aroclor 1016	ND	31		µg/Kg-dry	_	10/31/00 10:15:00 PM
Aroclor 1221	ND	31		µg/Kg-dry	_	10/31/00 10:15:00 PM
Aroclor 1232	ND	31		µg/Kg-dry		10/31/00 10:15:00 PM
Aroclor 1242	ND	3		µg/Kg-dry		10/31/00 10:15:00 PM
Aroclor 1248	ND	3		μg/Kg-dry	_	10/31/00 10:15:00 PM
Aroclor 1254	ND	31		μg/Kg-dry	_	10/31/00 10:15:00 PM
Aroclor 1260	5,000	150		μg/Kg-dry	(J)	11/1/00 9:05:00 PM
Surr: Tetrachloro-m-xylene	34.9	43-117	S	%REC	_	10/31/00 10:15:00 PM
Surr: Decachlorobiphenyl	45.2	36-130		%REC	_	10/31/00 10:15:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

- See Case Narrative

Date: 06-Nov-00

Project: Lab Order: CLIENT: PCBS BY EPA8082 Analyses Lab ID: Aroclor 1232 Aroclor 1260 Aroclor 1254 Aroclor 1248 Aroclor 1242 Aroclor 1221 Aroclor 1016 Surr: Decachlorobiphenyl Surr: Tetrachloro-m-xylene 00291 Canton 0010268 GEI Consultants, Inc. 0010268-04A Result 2,900 52.5 76.9 R B B 8 8 SW8082 36-130 43-117 140 28 28 28 28 28 Qual Units Client Sample ID: 00291-SS4 μg/Kg-dry µg/Kg-dry Collection Date: 10/25/00 %REC %REC µg/Kg-dry μg/Kg-dry μg/Kg-dry μg/Kg-dry μg/Kg-dry Matrix: SOIL 01 - - - - - - -10/31/00 10:42:00 PM 10/31/00 10:42:00 PM 10/31/00 10:42:00 PM 10/31/00 10:42:00 PM 11/1/00 9:32:00 PM 10/31/00 10:42:00 PM 10/31/00 10:42:00 PM 10/31/00 10:42:00 PM 10/31/00 10:42:00 PM Date Analyzed Analyst: RAP

			Qualifiers:
* - Value exceeds Maximum Contaminant Level	B - Analyte detected in the associated Method Blank	J - Analyte detected below quantitation limits	ND - Not Detected at the Reporting Limit
# - See Case Narrative	${f E}$ - ${f Value}$ above quantitation range	R - RPD outside accepted recovery limits	S - Spike Recovery outside accepted recovery limits

Date: 06-Nov-00

Lab ID: Project: Lab Order: CLIENT: 0010268 00291 Canton GEI Consultants, Inc. 0010268-05A Client Sample ID: 00291-SS5 Collection Date: 10/25/00 Matrix: SOIL

Analyses	Result	RL	Qual	RL Qual Units	DF	Date Analyzed
PCBS BY EPA8082	6	SW8082				Analyst: RAP
Aroclor 1016	ND	27		μg/Kg-dry	-	10/31/00 11:08:00 PM
Aroclor 1221	ND	27		μg/Kg-dry	_	10/31/00 11:08:00 PM
Aroclor 1232	ND	27		μg/Kg-dry	_	10/31/00 11:08:00 PM
Aroclor 1242	ND	27		µg/Kg-dry	_	10/31/00 11:08:00 PM
Aroclor 1248	3,600	140	#	µg/Kg-dry	G1	11/1/00 9:59:00 PM
Aroclor 1254	2,100	140	#	µg/Kg-dry	ហ	11/1/00 9:59:00 PM
Aroclor 1260	730	27	#	μg/Kg-dry	_	10/31/00 11:08:00 PM
Surr: Tetrachloro-m-xylene	62.7	43-117		%REC	_	10/31/00 11:08:00 PM
Surr: Decachlorobiphenyl	56.8	36-130		%REC	_	10/31/00 11:08:00 PM

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

- See Case Narrative

Date: 06-Noν-00

Project: Lab Order: CLIENT: Lab ID: 0010268 0010268-06A 00291 Canton GEI Consultants, Inc. Client Sample ID: 00291-SS6 Collection Date: 10/25/00 Matrix: SOIL

Analyses	Result	RL (Qual	RL Qual Units	DF	Date Analyzed
PCBS BY EPA8082	S	SW8082				Analyst: RAP
Aroclor 1016	ND	29		μg/Kg-dry	_	11/1/00 12:28:00 AM
Aroclor 1221	ND	29		μg/Kg-dry	-	11/1/00 12:28:00 AM
Aroclor 1232	ND	29		μg/Kg-dry	→	11/1/00 12:28:00 AM
Aroclor 1242	ND	29		µg/Kg-dry	<u> </u>	11/1/00 12:28:00 AM
Aroclor 1248	ND	29		µg/Kg-dry	_	11/1/00 12:28:00 AM
Aroclor 1254	ND	29		μg/Kg-dry	_	11/1/00 12:28:00 AM
Aroclor 1260	150	29		µg/Kg-dry	_	11/1/00 12:28:00 AM
Surr: Tetrachloro-m-xylene	38.6	43-117	S	%REC	_	11/1/00 12:28:00 AM
Surr: Decachlorobiphenyl	316	36-130	တ	%REC	_	11/1/00 12:28:00 AM

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate. # - See Case Narrative

Date: 06-Nov-00

Project: Lab ID: Lab Order: CLIENT: 00291 Canton 0010268-09A 0010268 GEI Consultants, Inc. Client Sample ID: 00291-SS7 Collection Date: 10/25/00 Matrix: SOIL

RL Qual Units	IAI OIIIIS	IJΪ	Date Analyzed
SW8082			Analyst: RAP
71	μg/Kg-dry	_	11/1/00 1:48:00 AM
71	µg/Kg-dry	_	11/1/00 1:48:00 AM
71	μg/Kg-dry	_	11/1/00 1:48:00 AM
71	μg/Kg-dry	_	11/1/00 1:48:00 AM
350 #	⊭ μg/Kg-dry	თ	11/1/00 11:18:00 PM
71 #	# μg/Kg-dry	_	11/1/00 1:48:00 AM
71 ‡	# μg/Kg-dry	_	11/1/00 1:48:00 AM
43-117	%REC	_	11/1/00 1:48:00 AM
36-130	%REC		11/1/00 1:48:00 AM
	082 71 71 71 71 71 71 71 71 43-117	77 77 77 77 77 77 77 77 77 77 77 77 77	71 µg/Kg-dry 71 µg/Kg-dry 71 µg/Kg-dry 71 µg/Kg-dry 71 µg/Kg-dry 71 # µg/Kg-dry

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ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

- See Case Narrative

Date: 06-Nov-00

Lab Order: CLIENT: 0010268 GEI Consultants, Inc. Client Sample ID: 00291-SS8

Project: Lab ID: 0010268-07A 00291 Canton Collection Date: 10/25/00 Matrix: SOIL

Analyses	Result	RL (Qual	RL Qual Units	DF	Date Analyzed
PCBS BY EPA8082	S	SW8082				Analyst: RAP
Aroclor 1016	ND	29		μg/Kg-dry	_	11/1/00 12:55:00 AM
Aroclor 1221	ND	29		μg/Kg-dry	_	11/1/00 12:55:00 AM
Aroclor 1232	ND	29		µg/Kg-dry	_	11/1/00 12:55:00 AM
Aroclor 1242	N	29		µg/Kg-dry		11/1/00 12:55:00 AM
Aroclor 1248	ND	29		µg/Kg-dry		11/1/00 12:55:00 AM
Aroclor 1254	380	29	#	µg/Kg-dry		11/1/00 12:55:00 AM
Aroclor 1260	420	29	#	μg/Kg-dry		11/1/00 12:55:00 AM
Surr: Tetrachloro-m-xylene	71.4	43-117		%REC	_	11/1/00 12:55:00 AM
Surr: Decachlorobiphenyl	50.8	36-130		%REC	-	11/1/00 12:55:00 AM

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ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

- See Case Narrative

Date: 06-Nov-00

Project: Lab ID: Lab Order: CLIENT: 0010268-10A 00291 Canton 0010268 GEI Consultants, Inc. Client Sample ID: 00291-SS9 Collection Date: 10/25/00 Matrix: SOIL

Analyses	Result	RL (Qual	RL Qual Units	DF	Date Analyzed
PCBS BY EPA8082	S	SW8082				Analyst: RAP
Aroclor 1016	ND	67		µg/Kg-dry	_	11/1/00 2:14:00 AM
Aroclor 1221	ND	67		µg/Kg-dry	_	11/1/00 2:14:00 AM
Aroclor 1232	ND	67		µg/Kg-dry	<u>.</u>	11/1/00 2:14:00 AM
Aroclor 1242	ND	67		µg/Kg-dry		11/1/00 2:14:00 AM
Aroclor 1248	ND	67		µg/Kg-dry	_	11/1/00 2:14:00 AM
Aroclor 1254	220	67	#	µg/Kg-dry	_	11/1/00 2:14:00 AM
Aroclor 1260	230	67	#	μg/Kg-dry	_	11/1/00 2:14:00 AM
Surr: Tetrachloro-m-xylene	58.6	43-117		%REC	_	11/1/00 2:14:00 AM
Surr: Decachlorobiphenyl	88.7	36-130		%REC	_	11/1/00 2:14:00 AM

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ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

- See Case Narrative

CLIENT:

GEI Consultants, Inc. Client Sample ID: 00291-SS10

Date: 06-Nov-00

Lab ID: Project: Lab Order: 00291 Canton 0010268 0010268-08A Collection Date: 10/25/00 Matrix: SOIL

Analyses	Result	RL Qual Units	al Units	DF	Date Analyzed
PCBS BY EPA8082	s	SW8082			Analyst: RAP
Aroclor 1016	ND	28	μg/Kg-dry	_	11/1/00 1:21:00 AM
Aroclor 1221	ND	28	μg/Kg-dry		11/1/00 1:21:00 AM
Aroclor 1232	ND	28	μg/Kg-dry	_	11/1/00 1:21:00 AM
Aroclor 1242	ND	28	μg/Kg-dry		11/1/00 1:21:00 AM
Aroclor 1248	ND	28	μg/Kg-dry	_	11/1/00 1:21:00 AM
Aroclor 1254	ND	28	µg/Kg-dry	_	11/1/00 1:21:00 AM
Aroclor 1260	240	28	μg/Kg-dry	-	11/1/00 1:21:00 AM
Surr: Tetrachloro-m-xylene	57.9	43-117	%REC	_	11/1/00 1:21:00 AM
Surr: Decachlorobiphenyl	49.7	36-130	%REC	_	11/1/00 1:21:00 AM

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ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

- See Case Narrative

Date: 06-Nov-00

CLIENT:	GEI Consultants, Inc.				Ω	Client Sample ID: 00291-SS1	00291-9	3S1
Lab Order:	0010268							
Project:	00291 Canton				_	Collection Date: 10/25/00	10/25/0	0
Lab ID:	0010268-01A					Matrix: SOIL	SOIL	
Analyses		Result		RL	RL Qual Units	Units	DF	Date Analyzed
PERCENT MOISTURE Percent Moisture	TURE	9.6	D2216	0		wt%	1	Analyst: SL 10/26/00

Qualifiers: ND - Not Detected at the Reporting Limit * - Value exceeds Maximum Contaminant Level B - Analyte detected in the associated Method Blank J - Analyte detected below quantitation limits # - See Case Narrative E - Value above quantitation range R - RPD outside accepted recovery limits S - Spike Recovery outside accepted recovery limits

Date: 06-Nov-00

0010268 0010268-02A 00291 Canton GEI Consultants, Inc. Client Sample ID: 00291-SS2 Collection Date: 10/25/00 Matrix: SOIL

CLIENT:
Lab Order:
Project:
Lab ID:

Percent Moisture	PERCENT MOISTURE	Analyses
8.8	Ď	Result
0	D2216	RL Qual Units
wt%		l Units
_		DF
10/26/00	Analyst: SL	Date Analyzed

Qualifiers: J - Analyte detected below quantitation limits ND - Not Detected at the Reporting Limit * - Value exceeds Maximum Contaminant Level B - Analyte detected in the associated Method Blank # - See Case Narrative E - Value above quantitation range R - RPD outside accepted recovery limits S - Spike Recovery outside accepted recovery limits

Date: 06-Nov-00

CLIENT:	GEI Consultants, Inc.			0	Client Sample ID: 00291-SS3	00291-9	3S3
Lab Order:	0010268						
Project:	00291 Canton				Collection Date: 10/25/00	10/25/0	0
Lab ID:	0010268-03A				Matrix: SOIL	SOIL	
Analyses		Result	R	RL Qual Units		DF	Date Analyzed
PERCENT MOISTURE Percent Moisture	STURE	19.6	D2216	0	wt%	1	Analyst: SL 10/26/00

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

- See Case Narrative

Date: 06-Nov-00

Analyses Lab ID: Project: PERCENT MOISTURE CLIENT: Lab Order: Percent Moisture 0010268 00291 Canton 0010268-04A GEI Consultants, Inc. Result 11.2 D2216 0 Qual Units Client Sample ID: 00291-SS4 Collection Date: 10/25/00 wt% Matrix: SOIL $\mathbf{D}\mathbf{F}$ Analyst: **SL** 10/26/00 Date Analyzed

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

- See Case Narrative

Date: 06-Nov-00

PERCENT MOISTURE 00291 Canton 0010268 0010268-05A GEI Consultants, Inc. Result D2216 RL Qual Units Client Sample ID: 00291-SS5 Collection Date: 10/25/00 Matrix: SOIL $\mathbf{D}\mathbf{F}$ Analyst: **SL** 10/26/00 Date Analyzed

Lab ID: Project:

Lab Order: CLIENT:

Analyses

Percent Moisture

10.7

0

wt%

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

- See Case Narrative

Date: 06-Nov-00

Analyst: SL 10/26/00	<u> </u>	0 wt%	D2216	15.1	STURE	PERCENT MOISTURE Percent Moisture
Date Analyzed	DF	RL Qual Units	R	Result		Analyses
	Matrix: SOIL	Matri			0010268-06A	Lab ID:
00	e: 10/25/0	Collection Date: 10/25/00			00291 Canton	Project:
					0010268	Lab Order:
-SS6): 00291-	Client Sample ID: 00291-SS6			GEI Consultants, Inc.	CLIENT:

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

E - Value above quantitation range

R - RPD outside accepted recovery limits

S - Spike Recovery outside accepted recovery limits

- See Case Narrative

Date: 06-Nov-00

Lab ID: Percent Moisture Lab Order: CLIENT: Analyses Project: 0010268 00291 Canton 0010268-07A GEI Consultants, Inc. Result Qual Units Client Sample ID: 00291-SS8 Collection Date: 10/25/00 Matrix: SOIL DF Analyst: **SL** 10/26/00 Date Analyzed

12.9

0

wt%

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

- See Case Narrative

Date: 06-Nov-00

Lab ID: Project: Lab Order: PERCENT MOISTURE CLIENT: **Analyses** Percent Moisture 0010268 00291 Canton 0010268-08A GEI Consultants, Inc. Result 12.4 0 Qual Units Client Sample ID: 00291-SS10 Collection Date: 10/25/00 wt% Matrix: SOIL \mathbf{DF} 10/26/00 Date Analyzed Analyst: SL

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

- See Case Narrative

METHOD BLANK

CLIENT:

GEI Consultants, Inc.

Work Order:

0010268

Project: 00291 Canton

Date: 08-Nov-00

Method Blank

QC SUMMARY REPORT

Sample ID MB-3031	Batch ID: 3031	Test Code	: SW8082	Units: μο	g/Kg		Analysis I	Date 10/31/ 0	0 8:02:00 PM	Prep Date	10/30/00	
Client ID:		Run ID:	GC-ELVI	S_001101A			SeqNo:	85756				
	QC Sample	QC Spike Original Sample							Original Sample			
Analyte	Result	RL	Units	Amount	Result	%REC	LowLimit	HighLimit	or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	ND	25	μg/Kg									
Aroclor 1221	ND	25	μg/Kg									
Aroclor 1232	ND	25	μg/Kg									
Aroclor 1242	ND	25	μg/Kg									
Aroclor 1248	ND	25	μg/Kg									
Aroclor 1254	ND	25	μg/Kg									
Aroclor 1260	ND	25	μg/Kg									
Surr: Tetrachloro-m-xylene	8.872	0	μg/Kg	8	0	111	43	117	0			
Surr: Decachlorobiphenyl	5.42	0	μg/Kg	8	0	67.8	36	130	0			

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

MATRIX SPIKE AND MATRIX SPIKE DUPLICATE

CLIENT:

GEI Consultants, Inc.

Work Order:

0010268

Project:

00291 Canton

Date: 08-Nov-00

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID 0010268-05AMS	Batch ID: 3031	Test Code: SW8082 Units: µg/Kg-dry Run ID: GC-ELVIS_001101A					Analysis I	Date 10/31/0	00 11:35:00 PM	Prep Date 10/30/00		
Client ID: 00291-SS5							SeqNo:	85776				
	QC Sample		QC Spike Original Sample						Original Sample			
Analyte	Result	RL	Units	Amount	Result	%REC	LowLimit	HighLimit	or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	578.1	28	μg/Kg-dry	559.1	0	103	41	125	0			
Aroclor 1260	912.6	28	μg/Kg-dry	559.1	726.7	33.3	39	120	0			s
Surr: Tetrachloro-m-xylene	5.84	0	μg/Kg-dry	8.945	0	65.3	43	117	0			_
Surr: Decachlorobiphenyl	5.441	0	μg/Kg-dry	8.945	0	60.8	36	130	0			
Sample ID 0010268-05AMSD	Batch ID: 3031	Test Code: SW8082 Units: µg/Kg-dry			**.	Analysis I	Date 11/1/00	12:02:00 AM	Prep Date	10/30/00		
Client ID: 00291-SS5		Run ID	C GC-ELV	IS_001101A			SeqNo:	85778				
	QC Sample			QC Spike Orig	ginal Sample			(Original Sample			
Analyte	Result	RL	Units	Amount	Result	%REC	LowLimit	HighLimit	or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	559.6	28	μg/Kg-dry	555.5	0	101	41	125	578.1	3.25	50	
Aroclor 1260	798.6	28	μg/Kg-dry	555.5	726.7	12.9	39	120	912.6	13.3	50	s
Surr: Tetrachloro-m-xylene	5.479	0	μg/Kg-dry	8.887	0	61.7	43	117	0	0	0	_
Surr: Decachlorobiphenyl	4.885	0	μg/Kg-dry	8.887	0	55	36	130	0	0	0	

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.

LABORATORY CONTROL SAMPLE

CLIENT:

GEI Consultants, Inc.

Work Order:

0010268

Project:

00291 Canton

Date: 08-Nov-00

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID LCS-3031	Batch ID: 3031	Test Cod	de: SW8082 Units: µg/Kg				Analysis [Date 10/31/0	0 3:36:00 PM	Prep Date	e 10/30/00	
Client ID:		Run ID:	GC-ELVI	S_001101A			SeqNo:	85757				
	QC Sample	QC Spike Original Sample						Original Sample				
Analyte	Result	RL	Units	Amount	Result	%REC	LowLimit	HighLimit	or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	475.9	25	μg/Kg	500	0	95.2	60	118	0			
Aroclor 1260	469.2	25	μg/Kg	500	0	93.8	61	125	0			
Surr: Tetrachloro-m-xylene	7.435	0	μg/Kg	8	0	92.9	43	117	0			
Surr: Decachlorobiphenyl	7.541	0	μg/Kg	8	0	94.3	36	130	0			

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits